

Chapter 2 Minerals

/25 points total

Section 2.3 Properties of Minerals

This section discusses the properties used to identify minerals, including color, luster, crystal form, streak, hardness, density, and some distinctive properties.

Reading Strategy

Outlining As you read, fill in the outline. Use the headings as the main topics and add supporting details.

4pts

I. Properties of Minerals
A. Color
1. _____

2. _____

B. Luster
1. _____

2. _____

Color

1. Is the following sentence true or false? Because color is unique to all minerals, it is always useful in mineral identification.

Streak

2. The color of a mineral in its _____ form is called streak.

Luster

3. What is a mineral's luster? _____

4. Circle the letter of the type of luster some minerals have that makes them appear to be metals.

- | | |
|-------------|-----------------|
| a. earthy | b. sub-metallic |
| c. metallic | d. glassy |

Crystal Form

5. Is the following sentence true or false? The visible expression of a mineral's internal arrangement of atoms is its crystal form.

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Hardness

6. Circle the letter of the hardest mineral shown on the graph.

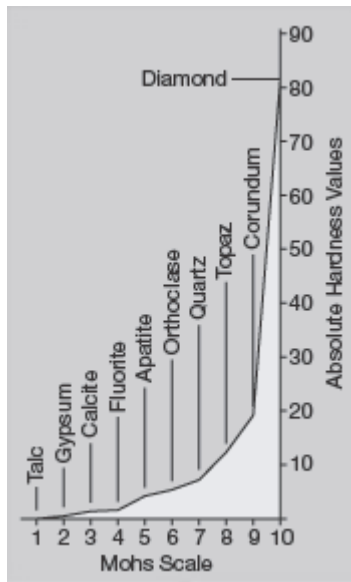
- a. talc
- b. diamond
- c. topaz
- d. quartz

7. Circle the letter of the hardness number of corundum on the Mohs scale shown on the graph.

- a. 7
- b. 9
- c. 10
- d. 20

8. Circle the letter of the mineral that is harder than apatite shown on the graph.

- a. talc
- b. calcite
- c. fluorite
- d. orthoclase



Cleavage

9. What is a mineral's cleavage? _____

Fracture

10. Minerals are said to _____ if they do not show cleavage when broken.

Density

11. What equation could you use to express the density of an object such as a mineral sample? _____

Distinctive Properties of Minerals

12. Circle the letter of the distinctive property you could use to distinguish graphite from talc.

- a. color
- b. feel
- c. double refraction
- d. smell

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WordWise

Solve the clues to determine which vocabulary terms from Chapter 2 are hidden in the puzzle. Then find and circle the terms in the puzzle. The terms may occur vertically, horizontally, or diagonally.

V E M A S S N U M B E R U N
 C D Y S X T H E I M G N G I
 W M E J H S P A Q X Z I O S
 M I N E R A L S R E U Y J O
 S C E H V T H Q N D A E I T
 A X R Y P O B D T C N S L O
 L I G R A M C U G P L E S P
 B A Y C S I L I C A T E S E
 T K L F U C L E A V A G E S
 M I E G X N T E K P H T E P
 A D V U L U S T E R Z P J B
 C H E L E M E N T D S S T X
 E X L M N B A U S S V H A L
 Z P S B C E W R T N O H I A
 R G C D Q R J H S M F L K P

3pts bonus
for finding
all words

10 pts

Clues

- How light is reflected from the surface of a mineral
- Number of protons in an atom of an element
- Atoms of the same element having different numbers of neutrons
- Measure of how a mineral resists scratching
- Substance that cannot be broken down into simpler substances
- Examples include quartz, copper, fluorite, and talc
- Regions where electrons are located
- Most common groups of minerals on Earth
- Tendency of a mineral to break along flat, even surfaces
- Sum of protons and neutrons in the nucleus of an atom

Hidden Words
